

WHAT IS CLAIMED IS:

At 5

1. A disc drive head positioning suspension comprising:

a load beam extending in a first plane having a first end and a second end, a longitudinal axis extending between the first end and the second end of the load beam, and a transverse axis extending perpendicular to the longitudinal axis within the first plane; and

a bend section connecting the base to the second end of the load beam, the bend section including a transverse axis aligned parallel to the transverse axis of the load beam, and a longitudinal axis parallel to the load beam longitudinal axis;

wherein the bend section comprises a plate having a width and a rail extending along the plate parallel to the transverse axis of the bend section, and wherein the rail extends out of the first plane.

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- 2. The suspension of claim 1 wherein the rail extends in two different planes.
- 3. The suspension of claim 1 wherein the rail has a width, a thickness, and a length, and wherein the width of the rail is substantially similar to the width of the base plate.
 - 4. The suspension of claim 2 wherein the bend section rail extends in a direction substantially normal to the first plane.
- 5. The suspension of claim 4 wherein the bend section comprises a second rail, the first and second rails being separated in the longitudinal axis direction of the bend section, the rails forming an open channel.
 - 6. The suspension of claim 5 wherein a cross-section of the open channel is substantially U-shaped.



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- 7. The suspension of claim 5 wherein either the first rail or the second rail comprises two segments along its width.
- 8. The suspension of claim 3 wherein the base plate of the bend section has a thickness and wherein the rail length is substantially greater than the thickness of the bend section.
 - 9. The suspension of claim 3 wherein a cross-section of the open channel is substantially circular.
 - 10. The suspension of claim 3 wherein a portion of the bend section and rail is removed on one side of the longitudinal axis.
- 11. The suspension of claim 3 wherein the load beam has a width centered about the longitudinal axis, and wherein the rail width is greater than the width of the load beam and no wider than the width of the base plate.
- 12. The suspension of claim 3 wherein the load beam has a width centered about the longitudinal axis, and wherein the rail width is less than the widthof the load beam.
 - 13. A suspension member comprising:

a plate extending in a first plane, the plate having a width centered about a longitudinal axis of the plate; and

a rail coupled to the plate, the rail extending along the plate parallel to a transverse axis of the plate; and

wherein the rail extends in a second plane wherein the second plane is different than the first plane.

The suspension member of claim 13 wherein the second plane is perpendicular to the first plane.



- 15. The suspension member of claim 13 wherein the second plane is at an angle less than 90° from the first plane.
- 5 16. The suspension member of claim 13 wherein the second plane is at an angle greater than 90° from the first plane.
 - 17. The suspension member of claim 13 wherein a second rail is coupled to the plate wherein the second rail extends in a third plane wherein the third plane is different than the first plane.
 - 18. The suspension member of claim 17 wherein the second plane and third plane are curved.
- 15 19. A head suspension comprising

a base;

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a load beam; and

a bend section having a first end and a second end, the first end being coupled to the load beam and the second end being coupled to the base;

wherein the bend section comprises a plate extending in a first plane and a rail coupled to the plate wherein the rail extends in a second plane wherein the first plane.

- 20. A suspension member comprising:
- a base extending in a first plane;

a load beam extending in a first plane; and

means coupling the base and load beam for maximizing translational stiffness of the load beam in a direction out of the first plane while minimizing rotational stiffness of the load beam.

